

REMARKS

Claims 1-26, of which claims 1, 15, and 19, are independent, are now pending in the application. Applicant contends that these claims are patentable and in condition for allowance, as discussed below.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claims 1-26 stand rejected under 35 U.S.C. §102(e) as being anticipated by published U.S. Patent Application No. 2003/0163555 A1 of Battou *et al.* (hereinafter "Battou"). Applicants respectively contend that Battou does not anticipate these claims. For purposes of clarity in the discussion below, the respective related claim sets rejected under 35 U.S.C. §102 are discussed separately.

I Rejections of Claims 1-14 under 35 U.S.C. §102(e):

The Office Action rejects claims 1-14 as being anticipated by Battou. Applicants respectively traverse this rejection on the basis of the following arguments, and further contend that Battou fails to disclose all elements of these claims, as described below, and hence does not anticipate the claimed invention.

Claims 2-14 depend either directly or indirectly upon independent claim 1, and therefore, incorporate the patentable features of claim 1.

Claim 1 is directed to a node in a communication network. The node includes an identification code, a control mechanism including configuration information for the node, and an alarm generator in the control mechanism for raising an alarm to a network user if there is a mismatch between the identification code and the configuration information. In other words, the node of claim 1 is configured to perform a consistency check to detect a foreign switch management card or other control card residing in the node. That is, the control mechanism detects a foreign card by comparing the identification code stored in the back plane of the node with a chasse identification code held by a configuration file in the control plane of the node. When a foreign card is detected, the node notifies a user of a mismatch and prevents configuration information stored in the foreign card from being downloaded to a node.

Consequently, the node of claim 1 beneficially avoids an unintentional disruption of a network topology caused by insertion of a foreign card into the node containing configuration information different from the configuration of the node. That is, when a card is moved from a first node to a second node it is likely the card contains configuration information from the first node. The insertion of the foreign card into the second node if unchecked can result in duplication of configuration information held by the foreign card at the second node. The result of such an event is two nodes in the network inadvertently having the same configuration information, which can lead to a number of network errors. For example, such an error can disrupt a network's topology causing service disruptions, such as dropped data, un converged networks, and other routing issues.

The Battou reference does not anticipate claim 1. Battou discloses a multi-tiered control architecture for adaptive optical networks. The multi-tiered control architecture disclosed by Battou is hierarchical and distributed control architecture for managing an optical communications networks. The architecture includes a line card manager level for managing individual line cards in an optical switch, a node manager level for managing multiple line cards in an optical switch/node, and a network management system level for managing multiple optical switches/nodes in a network. Control architecture functionalities include signaling, routing, protection switching and network management. The network management function includes a topology manager, a performance manager, a connection manager, a fault detection manager, and a configuration manager.

Nonetheless, the multi-tiered control architecture taught by Battou fails to disclose a node having an alarm generator in a control mechanism for raising an alarm to a network user if there is a mismatch between an identification code and configuration information. As such, Battou does not address the catastrophic results of having two nodes in the network having the same configuration information resulting from plugging a card from a first node into a second node and having the unintended result of the configuration information for the second node match the configuration of the first node. In contrast, the node of claim 1 avoids such an event because it includes an alarm generator and a control mechanism for raising an alarm to a network user if there is a

mismatch between an identification code and configuration information. Nowhere does Battou disclose such a feature.

Moreover, the multi-tiered architecture of Battou discloses that the node state along with the line card manager (LCM) software are stored locally to a node so that the node manager can rapidly restore a swapped line card to the needed configuration without requiring a remote software download. Hence, the node taught by Battou does not raise an alarm to a network user if there is a mismatch between identification code and configuration information because Battou merely overwrites any configuration information held by the foreign card. *See*, paragraph 99 of Battou. Accordingly, Battou does not anticipate claims 1-14.

Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 1-14 under 35 U.S.C. §102(e).

II Rejection of Claims 15-18 under U.S.C. §102(e):

The Office Action rejects claims 15-18 as being anticipated by Battou. Applicant respectfully traverses this rejection on the basis of the following arguments, and further contends that Battou fails to disclose all elements of these claims, as described below, and hence does not anticipate the claimed invention.

Claims 16-18, depend directly or indirectly, upon independent claim 15, and therefore, incorporate the patentable features of claim 15.

Claim 15 is directed to a method for restoring configuration information in a node of a communications network. The method includes the step of performing a consistency check between an identification code programmed into the node and configuration information stored in a control mechanism in the node. Performance of the method raises an alarm if the consistency check reveals a mismatch between the identification code and the configuration information.

Battou does not anticipate claim 15. The multi-tiered architecture taught by Battou provides a function and operation distinct from the method of claim 15. That is, according to Battou, the node state and the LCM software are stored locally to the node. As such, the node manager can rapidly restore a swapped line card to the needed

configuration without requiring a remote software download, e.g., from the network management system. *See*, paragraph 99 of Battou. In other words, Battou restores configuration information in a node *without* performing a consistency check between an identification code programmed into the node and configuration information stored in a control mechanism in the node. That is, when a control mechanism is inserted into the node have an architecture disclosed by Battou that node takes a “brute force” approach to configuration management by merely overwriting all configuration information held in the new control mechanism without performing a consistency check between an identification code programmed into the node and configuration information stored in a control mechanism in the node. Hence, Battou does not anticipate claims 15-18.

Accordingly, applicant requests the Examiner to reconsider and withdraw the rejection of claims 15-18 under 35 U.S.C. §102(e).

III Rejection of Claims 19-26 35 U.S.C. §102(e):

The Office Action rejects claims 19-26 as being anticipated by Battou. Applicant respectfully traverses this rejection on the basis of the following arguments, and further contends that Battou fails to disclose all elements of these claims, as described below, and hence does not anticipate the claimed invention.

Claims 20-26 depend either directly or indirectly upon independent claim 19, and therefore, incorporate the patentable features of claim 19.

Claim 19 recites a method of preserving configuration information in a node of a communication network when there is a discrepancy between a hardware configuration and configuration information stored in a control mechanism for the node. The method includes the step of performing a consistency check between the configuration information stored in the control mechanism and the hardware configuration of the node and in the vicinity of the node. If the consistency check fails to validate the configuration information against the hardware configuration, the method raises an alarm.

Battou does not anticipate claim 19. The node architecture disclosed by Battou discloses a “brute force” methodology for configuring the node and thus does not perform consistency checks between configuration information stored in a control

mechanism and the hardware configuration of the node and in the vicinity of the node. That is, Battou discloses that in the node a state of the node and the LCM software are locally stored so the node manager can rapidly restore a swapped line card to the needed configuration without requiring a remote software download, e.g. from the network management system. *See*, paragraph 99 of Battou.

In other words, Battou does not disclose a method of preserving configuration information in a node when there is a discrepancy between a hardware configuration and a configuration information stored in a control mechanism for the node. More specifically, Battou discloses to store the configuration information locally and merely overwrite the configuration of a line card placed in the node without performing any consistency check. Hence, Battou does not anticipate claim 19.

Accordingly, applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 19-26 under U.S.C. §102(e).

CONCLUSION

In view of the remarks set forth above, Applicants contend that claims 1-26 are presently pending in this application, are patentable, and in condition for allowance. If the Examiner deems there are any remaining issues, we invite the Examiner to call the undersigned at (617) 227-7400.

Respectfully submitted,

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